

U.S. Patent Application Serial No. 09/731,863  
Amendment dated October 31, 2003  
Reply to OA of **June 3, 2003**

**IN THE CLAIMS**

Please amend claims 23, 24, 35 and 36 as follows:

1-19. (Canceled).

20. (Previously Presented): A method for purification treatment of an environmental pollutant, comprising the step of incorporating the environmental pollutant and microorganisms in a cohesive or adhesive polysaccharide produced from bacteria of the genus *Zoogloea*; a levan produced from bacteria of the genus *Bacillus*, *Acetobacter*, or *Pseudomonas*; or a polymer containing a sugar component in which fructofuranosyl group(s) is/are bonded to a fructosyl group at the  $\beta$ -2,6 position.

21. (Previously Presented): A method for purification treatment of an environmental pollutant, comprising the step of incorporating the environmental pollutant and microorganisms in a polyamino acid.

22. (Previously Presented): The method according to claim 21, wherein the microorganism-produced polymer is a polyamino acid containing at least one amino acid selected from the group consisting of glutamic acid, leucine, alanine and phenylalanine.

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23. (Currently Amended): The method according to claim 21, wherein the microorganism-produced polymer is a polyamino acid substantially consisting of glutamic acid, leucine; or alanine ~~or phenylamine~~.

24. (Currently Amended): The method according to claim 21, wherein the microorganism-produced polymer is a polyamino acid containing at least 65% of one amino acid selected from the group consisting of glutamic acid, leucine; and alanine ~~and phenylalanine~~.

25. (Previously Presented): The method according to claim 20, wherein the step of incorporating the environmental pollutant and microorganisms is done in the presence of a cationic inorganic salt.

26. (Previously Presented): The method according to claim 21, wherein the step of incorporating the environmental pollutant and microorganisms is done in the presence of a cationic inorganic salt.

27. (Previously Presented): The method according claim 25, wherein the cationic inorganic salt is at least one member selected from the group consisting of aluminum chloride, aluminum sulfate, sodium aluminate, calcium chloride, ferrous sulfate, ferric chloride, iron (III) sulfate and copper chloride.

28. (Previously Presented): The method according claim 26, wherein the cationic inorganic salt is at least one member selected from the group consisting of aluminum chloride, aluminum sulfate, sodium aluminate, calcium chloride, ferrous sulfate, ferric chloride, iron (III) sulfate and copper chloride.

29. (Previously Presented): The method according to claim 20, wherein the microorganisms are at least one member selected from the group consisting of the genera *Pseudomonas*, *Rhodococcus*, *Aeromonas*, *Rhizobium*, *Sphingomonas*, *Arthrobacter*, *Frateuria*, *Flavobacterium* and *Bacillus*.

30. (Previously Presented): The method according to claim 21, wherein the microorganisms are at least one member selected from the group consisting of the genera *Pseudomonas*, *Rhodococcus*, *Aeromonas*, *Rhizobium*, *Sphingomonas*, *Arthrobacter*, *Frateuria*, *Flavobacterium* and *Bacillus*.

31. (Previously Presented): The method according to claim 20, wherein the environmental pollutant is at least one member selected from the group consisting of polychlorinated biphenyls, dioxins, dichloroethylenes, dichloroethanes, trichloroethylenes, trichloroethanes, mercury and its compound, and selenium and its compounds.

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32. (Previously Presented): The method according to claim 21, wherein the environmental pollutant is at least one member selected from the group consisting of polychlorinated biphenyls, dioxins, dichloroethylenes, dichloroethanes, trichloroethylenes, trichloroethanes, mercury and its compound, and selenium and its compounds.

33. (Previously Presented): A microbial treatment agent comprising microorganisms incorporated in a cohesive or adhesive polysaccharide produced from bacteria of the genus *Zoogloea*; a levan produced from bacteria of the genus *Bacillus*, *Acetobacter*, or *Pseudomonas*; or a polymer containing a sugar component in which fructofuranosyl group(s) is/are bonded to a fructosyl group at the  $\beta$ -2,6 position.

34. (Previously Presented): A microbial treatment agent comprising microorganisms incorporated in a polyamino acid.

35. (Currently Amended): The microbial treatment agent according to claim 34, wherein the polyamino acid substantially consists of glutamic acid, leucine, or alanine ~~or phenylalanine~~.

36. (Currently Amended): The microbial treatment agent according to claim 34, wherein the

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polyamino acid contains at least 65% of one amino acid selected from the group consisting of glutamic acid, leucine, and alanine ~~and phenylalanine~~.

37. (Previously Presented): The microbial treatment agent according to claim 33, wherein the microorganisms are at least one member selected from the group consisting of the genera *Pseudomonas*, *Rhodococcus*, *Aeromonas*, *Rhizobium*, *Sphingomonas*, *Arthrobacter*, *Frateuria*, *Flavobacterium* and *Bacillus*.

38. (Previously Presented): The microbial treatment agent according to claim 34, wherein the microorganisms are at least one member selected from the group consisting of the genera *Pseudomonas*, *Rhodococcus*, *Aeromonas*, *Rhizobium*, *Sphingomonas*, *Arthrobacter*, *Frateuria*, *Flavobacterium* and *Bacillus*.

39. (Previously Presented): The microbial treatment agent according to claim 33, wherein the microorganisms are a mixture of at least two members selected from the group consisting of the genera *Pseudomonas*, *Rhodococcus*, *Aeromonas*, *Rhizobium*, *Sphingomonas*, *Arthrobacter*, *Frateuria*, *Flavobacterium* and *Bacillus*.

40. (Previously Presented): The microbial treatment agent according to claim 34, wherein the microorganisms are a mixture of at least two members selected from the group consisting of the

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genera *Pseudomonas*, *Rhodococcus*, *Aeromonas*, *Rhizobium*, *Sphingomonas*, *Arthrobacter*, *Frateuria*, *Flavobacterium* and *Bacillus*.

41. (Previously Presented): The microbial treatment agent according to claim 33, further comprising a cationic inorganic salt.

42. (Previously Presented): The microbial treatment agent according to claim 34, further comprising a cationic inorganic salt.

43. (Previously Presented): The microbial treatment agent according to the claim 41, wherein the cationic inorganic salt is at least one member selected from the group consisting of aluminum chloride, aluminum sulfate, sodium aluminate, calcium chloride, ferrous sulfate, ferric chloride, iron (III) sulfate and copper chloride.

44. (Previously Presented): The microbial treatment agent according to the claim 42, wherein the cationic inorganic salt is at least one member selected from the group consisting of aluminum chloride, aluminum sulfate, sodium aluminate, calcium chloride, ferrous sulfate, ferric chloride, iron (III) sulfate and copper chloride.

45. (Previously Presented): The microbial treatment agent according to claim 33, wherein the microorganism is capable of assimilation or degradation of the environmental pollutant.

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46. (Previously Presented): The microbial treatment agent according to claim 34, wherein the microorganism is capable of assimilation or degradation of the environmental pollutant.

47. (Previously Presented): The microbial treatment agent according to claim 45, wherein the environmental pollutant is at least one member selected from the group consisting of polychlorinated biphenyls, dioxins, dichloroethylenes, dichloroethanes, trichloroethylenes, trichloroethanes, ethylenes, mercury and its compounds, and selenium and its compounds.

48. (Previously Presented): The microbial treatment agent according to claim 46, wherein the environmental pollutant is at least one member selected from the group consisting of polychlorinated biphenyls, dioxins, dichloroethylenes, dichloroethanes, trichloroethylenes, trichloroethanes, ethylenes, mercury and its compounds, and selenium and its compounds.